Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

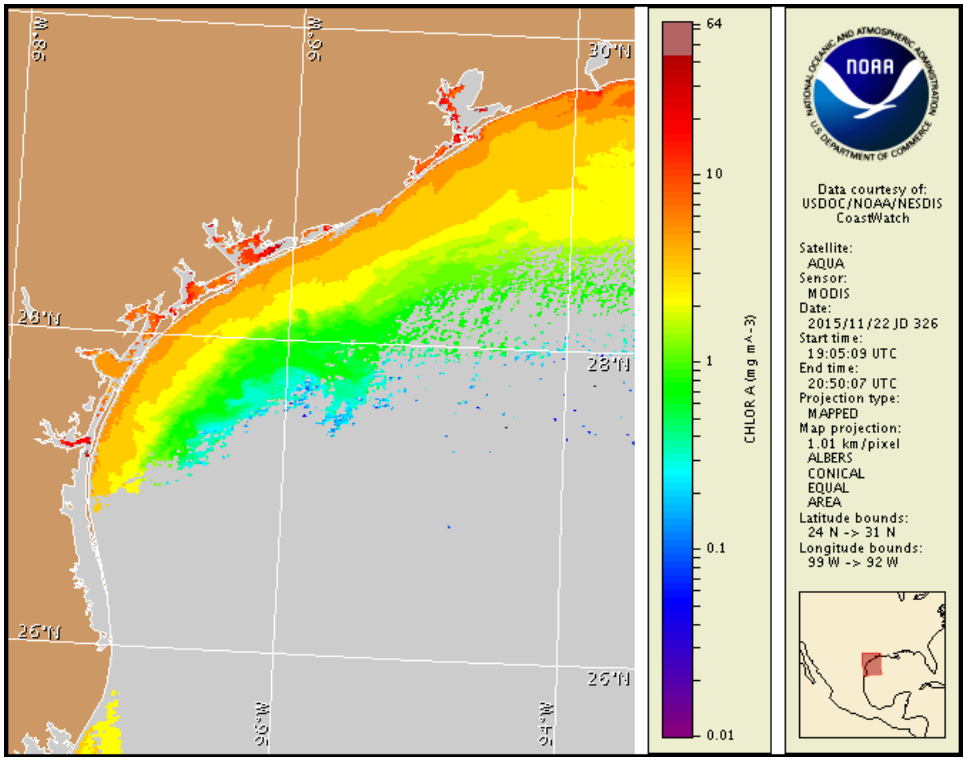
Monday, 23 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 19, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 13 to 21: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from Matagorda Bay to the Rio Grande. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. Based on the most recent samples received in early November, the highest level of potential respiratory irritation forecast for Monday, November 23 through Wednesday, November 25 is listed below. These forecasts will be updated when new sample data becomes available.

Region: Forecast (Duration)
Matagorda Peninsula region: Low (M-W)
Bay region-Matagorda Bay: High (M-W)
Bay region-San Antonio to Espiritu Santo Bay: High (M-W)
Bay region-Aransas Bay to Aransas Pass: Low (M-W)
Bay region-Corpus Christi Bay: High (M-W)
Aransas Pass to PINS region: Moderate (M-W)
Bay region-Upper Laguna Madre: Very Low (M-W)
Padre Island National Seashore region: Moderate (M-Tu), High (W)
Bay region-Lower Laguna Madre to Laguna Vista: Low (M-W)
Mansfield Pass to Beach Access 6 region: Moderate (M-Tu), Very Low (W)
Beach Access 6 to Rio Grande region: Very Low (M-W)
All Other Texas Regions: None expected (M-W)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

Analysis

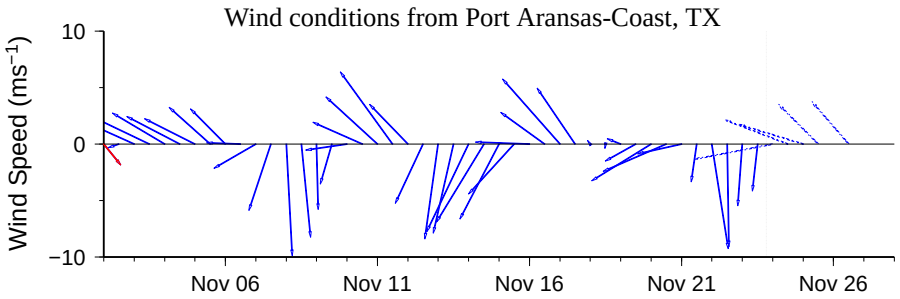
Due to the upcoming federal holiday, the next bulletin will be issued on Wednesday, November 25.

No recent samples are available at this time. In samples from early November, *Karenia brevis* concentrations ranged from 'background' to 'high' from Matagorda Bay to the Rio Grande. Samples from November 2-4 indicated *K. brevis* concentrations were 'high' within Matagorda Bay, San Antonio Bay, and Corpus Christi Bay, 'low a' alongshore Matagorda Peninsula and in Aransas Bay, 'medium' alongshore PINS to South Padre Island, 'very low b' within the Upper Laguna Madre, and up to 'very low a' near Brazos Santiago Pass (TPWD). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

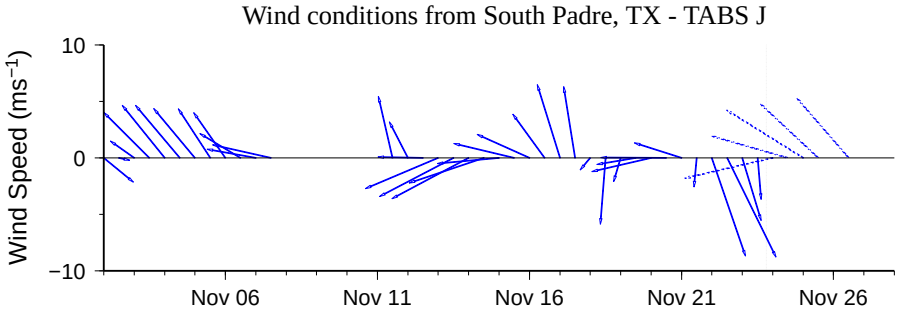
Recent MODIS Aqua imagery (11/22, shown left) is obscured by clouds from just north of Mansfield Pass to the Rio Grande, limiting analysis in this region. Elevated chlorophyll (2-6 μg/L) is visible in patches along- and offshore the Texas coast from Galveston Island to Padre Island.

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 60 km south from Pass Cavallo, 70 km south from Aransas Pass, and 80 km south from Brazos Santiago Pass from November 23 to November 25.

Lalime, Derner



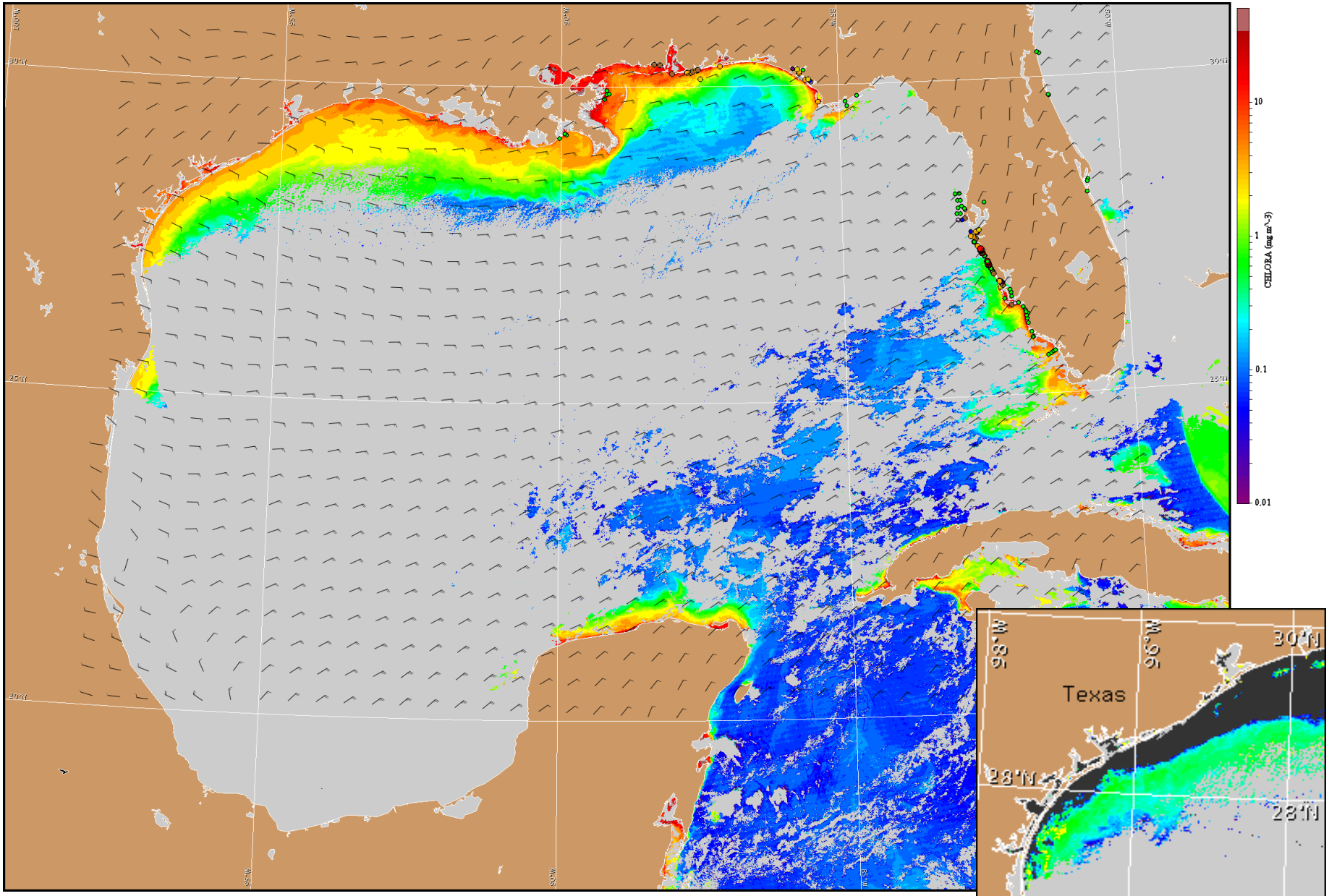
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Port Aransas to Baffin Bay: Northeast winds (10kn, 5m/s) today. Southeast winds (10-20kn, 5-10m/s) tonight through Wednesday.

Port Mansfield to the Rio Grande: East winds (8-12kn, 4-6m/s) today. Southeast winds (10-18kn, 5-9m/s) tonight through Wednesday.



Satellite chlorophyll image and forecast winds for November 24, 2015 12Z with points representing cell concentration sampling data from November 13 to 21: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).